

### **REMARKS**

This responds to the Office Action dated April 11, 2006, and the references cited therewith.

No claims are amended. Claims 1-20 are now pending in this application.

#### **Objection to the Specification**

The specification was objected to due to an informality. Applicant has amended the specification to overcome this objection.

#### **§103 Rejection of the Claims**

Claims 1, 5-9, 14, 16, 17, 19 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ayers et al. (U.S. Patent No. 5,814,081) or White (U.S. Patent No. 5,562,709) in view of Borgerding et al. (U.S. Patent No. 6,058,327). The rejections are traversed and reconsideration is respectfully requested.

Although the Ayers reference does mention an “upper and lower threshold” for an R wave detector circuit, applicant can find no discussion in the reference as to how the upper and lower thresholds are used to time shockable RR intervals and deliver synchronous defibrillation shocks. The White reference discusses the use of two R wave detection channels with different sensitivities and specificities for timing a shockable RR interval and delivering a synchronous defibrillation shock. Neither the White nor Ayers reference, however, appears to teach or suggest using three different sensing thresholds in the manner claimed by applicant in independent claims 1, 9, and 17. As recited in those claims, three separate events are detected in the channel: an R wave when the electrogram exceeds the dynamically varying threshold, a high threshold event when the electrogram exceeds the high shock threshold value, and a low threshold event when the electrogram exceeds the low shock threshold value. All three of these events are employed in timing a shockable RR interval and delivering a synchronous defibrillation shock. After detection of atrial fibrillation, an R wave detected by the dynamically varying threshold starts the shockable interval timer, a low threshold event restarts the shockable interval timer, and a defibrillation shock is delivered if a high threshold event is detected and the shockable interval timer has reached or exceeded a specified minimum value. Applicant finds no

teaching or suggestion in either Ayers or White for employing three different thresholds to deliver synchronous defibrillation shocks in this manner. Furthermore, applicant does not believe the description of a dynamically varying sensing threshold *per se* (as cited in the office action with respect to the Borgerding reference) is sufficient to constitute a suggestion for modifying the devices described in White or Ayers to operate in the manner presently claimed by applicant. Applicant respectfully submits that claims 1, 9, 17, and the claims depending therefrom are patentable over the prior art of record.

*Double Patenting Rejection*

Claims 17, 18 and 20 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9, 10 and 14 of U.S. Patent No. 6,584,350. A terminal disclaimer is submitted herewith to overcome the rejections.

*Allowable Subject Matter*

Claims 2-4, 10-13 and 15 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In view of the remarks above, applicant respectfully requests withdrawal of the objections.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (847) 432-7302 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

JAEHO KIM ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(847) 432-7302

Date 7-11-06

By J. Kevin Parker  
J. Kevin Parker  
Reg. No. 33,024

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 11 day of July, 2006.

Paula Suchy  
Name

Paula Suchy  
Signature